

Welcome to use Our Injection Molding Machine Control System

Safety Cautions

(Please read it before installation)



I. Danger

1. In order to ensure the secure operation of the whole system in case of the abnormal external power and the control system's failing to function, please set up the external safe circuit for the control system.
2. Upon its failure to detect the abnormal conditions of input and output, the control system cannot control the output. Therefore, please design the external circuit and framework to ensure the safe operation of the system.



Cautions

1. Please read this User's Guidance carefully before installation.
2. Do not dismantle the host computer shell and keyboard without permission.
3. In case of any questions, please dial the after-service service hotline of PORCHESON.

PORCHESON TECHNOLOGY CO. , LTD

BK208S

Operator's Manual

Software Version: V2.0

2008. 04 Version

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Chapter 1 System Configuration & Installation

1. System Configuration & Remarks

No.	Code	Content	Q'ty	Remarks
1	PS800CM	Host Computer	1 Set	26/28+10
2	BK208B	Keyboard	1 Set	320*240
3	PW600	Power pack	1 Set	600W
4	DB-15F	DB-15F	1	1m-5m, optional

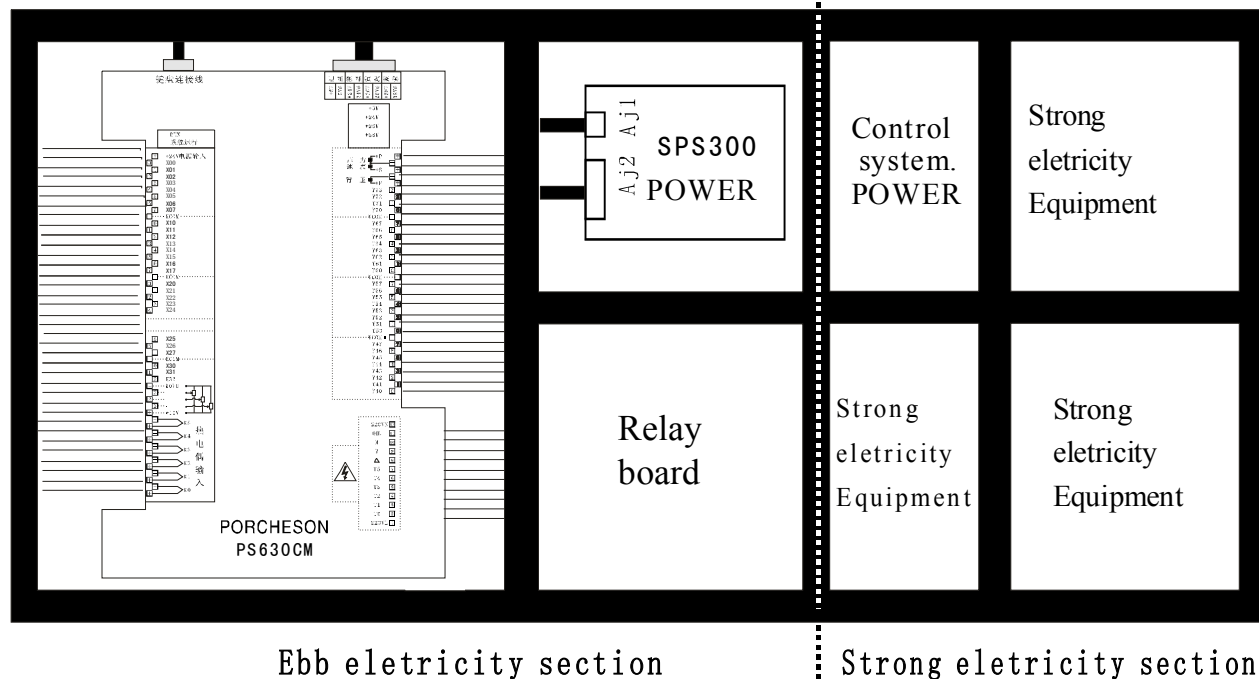
2. Characteristics of PS800CM Control System

- ▶ The whole computer may control all functions and temperatures.
- ▶ The system has bright LCD display and 320*240 Dot 5.7" concolorous/colorful (optional)
- ▶ The system adopts CPU design with fast operating speed, precise control and high stability.
- ▶ The control host computer adopts the blocking design with time-saving installation and rapid maintenance.
- ▶ It has the real time function to display time and date in real time.
- ▶ OFF It has the screen screensaver function, it will power off when there is no operation within 5 minutes.
- ▶ With 80 groups of mode data storage, it may enter the model description and real-time operating help in Chinese and English.
- ▶ The cipher setting and data locking can prevent the operators from changing the established data arbitrarily to influence the quality of products.
- ▶ There are multiple languages for your choice that display dynamically in real time.
- ▶ Packing modulus setting function for 6-digit output may set the packing modulus.
- ▶ Various self-plugging and tein type programs are applicable for the self-plugging and tein control in different types.
- ▶ PID (Proportional Integral Derivative) with self temperature control has 6 sections of temperatures.
- ▶ Ejector nozzle temperature can be controlled with open or enclosed loop.
- ▶ Temperature may be preset a week in advance to enable more convenient operation.
- ▶ Various types of travel control modes, range travel switch/3-path coder/electric ruler (optional)
- ▶ Various types of Glue Shot ways, 4 sections of Glue Shot and class-3 pressure preservation
- ▶ Failure Self-detection functions, alarm display and voice prompt
- ▶ LED indicators for output and input may it convenient to inspect and maintain the system.
- ▶ Input and output are done by the optically coupled circuit to isolate the interference of the external circuitry.
- ▶ In the inspection window, you can inspect all input and output points and the moving states of key.
- ▶ 3-path standard D/A proportional output, the maximum current output 3A (PS610 is 2-path).
- ▶ Presetting of the voltage and runoff values, proportional valve available for the products in all brands and better linear proportion.
- ▶ With remote communication functions, it can let you do the programming and upgrading softwares easily and remotely.
- ▶ The management of 255 vertical machine production is by a host networking computer , It can accurate statistics each machine production state and produce data type ,so ,it is convenient to manage.

3. Installation and Debugging of Computer Control System

3.1 Cautions upon Installing the Control System

The design of control system is simple and easy, only one 15-core shielding cable connecting the keyboard and host computer shell with flexible and handy installation and connection. The sketch map for installation is shown as follows:






control box equipment;outfit (for reference only)

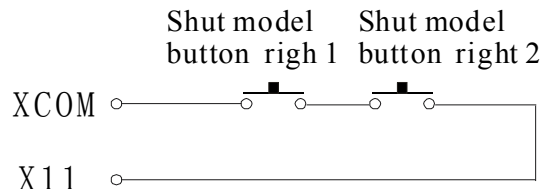
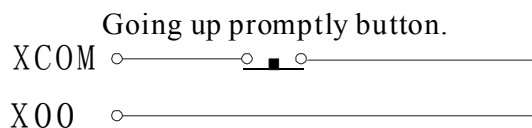
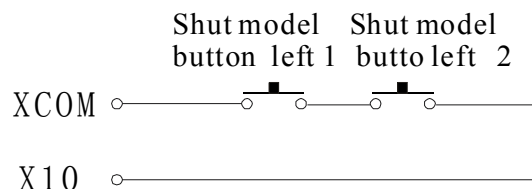
- (1) Upon installing the host control box, adopt the enclosed distribution cabinet at the first choice. It shall be fixed in the well-ventilated, greaseproof and dustproof conditions equipped with a fan and dustproof. The distribution box shall be stored under 60°.
- (2) Upon fixing the host computer and power pack, please keep the interconnecting parts such as all AC connectors and transformers as far away from each other as possible to prevent the electric wave interference from the electronic grid.
- (3) All electric wires and shielding wires shall not be cut off, lengthened or curtailed arbitrarily. You should use the electric wires and shielding wires provided by this company to prevent from influencing the reliability and normal operation of the control system.
- (4) The shell of flame couple shall adopt the shielding wire. When the outer shielding of all flame couples adopts the thermal couple reticles, the reticle and machines shall be well grounded and connected to the ground with the earthing resistance below 10Ω.
- (5) Upon wiring, separate the high and low pressure line from the computer control line as much as possible, do not bind all electrical wires together to prevent the interference from affecting the reliable operation of control system.
- (6) Upon fixing the keyboard and 15-core communication connections of the host computer, you shall press and tweak with force to prevent the poor connection from affecting the reliable operation of control system.
- (7) Pay special attention to the oil valve outlet public port YCOM, it shall be connected well to prevent the computer from inputting while having the phenomenon of oil valve having no motion.

3.2 the examine of controlling system

- (1) After finishing installing, check in an all-round way, ensure all such lines including switch power, host computer case, electric heat output circuit, keyboard electric thermocouple, etc. join firmly.
- (2) After Finish circuit checking, it should check electify, output direct current source namely switch power line plug take out first, then check to set up an electric circuit, measure every voltage see that it is the same as the standard value, should observe if switch power output indicator lamp normal.
- (3) Cut out the electric after finish the measurement, insert DC8 location input the host computer case plug, process electrify check-up. when checking again, the keyboard LCD show in main page in normal condition, turn on park switch and check if the host computer case RUN light is on, if the light is on, prove the system has already worked normally.

3.3 control systems debugging

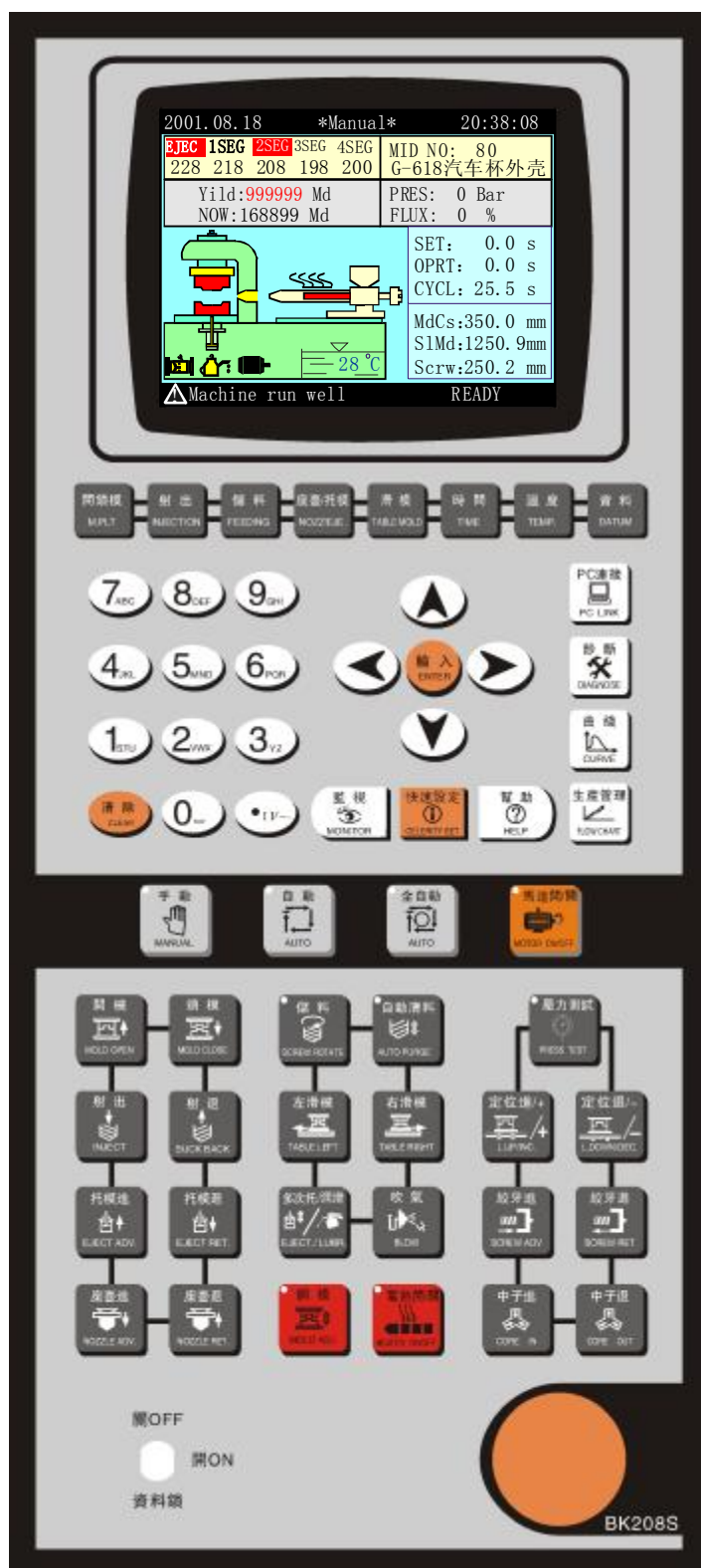
- (1) After System show the normal work, press  Key, the model button under supervise page, choose a group of mould number, then establish in every page.
- (2) Carry on the parameter establish memory test, press  Key, the button on the data, press  Key, then store the data, cut off the power, put power on after a while, the system will access the model number materials that you store in automatically, if correct, show memory is normal.
- (3) Go on establish of every relevant page materials, (particular operating refer to the parameter enactment instruction of the third chapter. while establishing for the first time, the pressure, speed have better be a bit more low, strengthen normally progressively after every movement is normal, so as not to damage the performance of the machine.
- (4) After finished relevant parameters established, you should enter the store and check carefully whether it is normal to each input / export point, checks the warning system in an all-round way, including the electric eye, going up promptly; the wiring diagram of shut model button going up promptly as follows promptly.






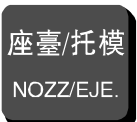





- (5) Left and right shut model button push time difference exceed 2 second, system will alarm, stop all outputting at the same time; Push the system of going up promptly and stop exporting immediately, output the open model movements at the same time, operate model change to by hand.

Chapter 2 Explanation of the Key Operations

1. Figure of Keyboard on the Operation Panel (See the figure below)



2. Explanation of the Functional Keys





Keys	Usage
	Enter into the screen to set the mold opening & locking movement
	Enter into the screen to set the Glue Shot and pressure-preserving movement
	Enter into the screen to set the feeding, glue taking and automatic material removal movement
	Enter the page of seat platform, thimble, page slippery model, and releasing core and releasing gas.
	Enter the page of setting up temperature, preheating
	Enter the page of setting up time, counting
	Enter setting up and modification page of mould and production material
	Return to monitor pages at any moment
	Entering online-help pages at present

3. Instruction of Parameter setting mode






The numerical key from 0 to 9 in data setting page is used for data importing, when the electronic lock is in " OFF " state, this ten numerical keys are locked, guarantee the materials not to be altered at will . There are 26 English letters and special symbols separately on 0 to 9 numerical keys for the mould name inputting in Chinese or English, the inputting machine serial number. [Remove key] you can press this key to remove the wrong when the parameter or the serial number name have been wrongly written[Input] key serve as function selection key if there are functions to be select and as confirm key if there are items to confirm.

4. Vernier key

Keys	Usage
	Jump rank key, cursor goes the previous line after pressing this key
	Change arrange key, cursor goes the left arranging after pressing this key
	Change arrange key, cursor goes the right arranging after pressing this key
	Jump rank key, cursor goes the previous line after pressing this key










5.the options button of operating mode










Keys	Usage	Remarks
	System enter the manual operation state after press the button.	There is an indicator at the upper left corner of every key,after pressing one of these key,this indicator is on, that showthe system is in the just state.
	S Press this key and system enters the semi-automatically operation	The default mode is manual operation. If temperature hasnot reached the establishing value , the system is unable to operate semi-automatically, when pressing buttons as semi-automatically, the indicator lamp is not on.
	Press this key and s system to enter the full-automatically operation	Untiltemperature reaches the establ ishing value, the set can run semi-automatically .



6. Electrothermal ON/OFF key and Motor ON/OFF key

In the manual mode, press a button the indicator in the left up is on which indicates this function has already been on; the indicator lamp left above is off when press the button once again ,shows this function state has already been closed , continue press the key, this function will be opened or closed in turn. When the emergency switch stops, the motor cuts out rapidly, but does not influence the electric heat work.

8. Manual operation key

Keys	Usage	Operation Conditions
	Open mould operate	1 . turning on mould don't reach stop position;
	jet operate ion	1. press keeping time has not ended; 2. the temperature of the material tube must reach to the establishing value range;
	Jet back operation	1. the temperature of material tube already reached the establishing value range;
	Tip out operation	1. if using the journey, the journey has not reached the position of stopping; 2. If using time, the time of appearing and has not ended; 3. the opened-mould already got the position of stopping; 4. if using releasing core /entangling, produce /already; Core retreat tooth finish 5. if using slippery mould, Left or right slippery mould has already got to make a reservation;
	Retreating operation	1. if using the journey, the journey has not reached the position of stopping ; 2. if using time, the time of retreating has not ended ;
	The operation of seat move forward	1 . unconditional;
	The operation of seat move back	1 . unconditional;
	The operating of adjusting mould	1. the speed of t adjusting he mould to slow down after pressing this key bright;
	The blowing operation	1. chooses for blowing; 2. Blow time has not ended;

Keys	Usage	Operation Conditions
	The operation of adding material	1. not reach end position for adding raw material 2. The temperature of the material tube must reach in the establishing value range;
	The automatic operation for clearing material	1. chooses for clearing material; 2. The times of clearing material has not ended; 3. the temperature of the material tube must reach in the establishing value range;
	Left slipping operation	1. stop opening mould 2. stop retreating; 3. left slipping model has not got the end location
	Right Slipping operation	1. stop opening mould 2. stop retreating; 3. right slipping model has not got the end location
	The pressure adjusting operation in advance	1. after pressing this bright key, you can enter the pressure adjusting operation
	Back orientation/ pressure increasing	1. not choose the pressure-reservation ; realize the advance orientation operation 2. already choose the pressure-reservation; Realize the increasing-pressure operation
	Back orientation/ pressure minishing	1. not choose the pressure-reservation ; realize the advance orientation operation 2. already choose the pressure-reservation; Realize the monishing-pressure operation
	wringing tooth operation	1. choose to use 2. advance-time not end 3. stop retreating
	Retreat wringing tooth operation	1. Choose to use 2. advance-time not end 3. Stop retreating

Keys	Usage	Operation Conditions
	Enter core operation	1. choose to .releases the core 2. the entering- core not to ending position or; Time has not finished 3. stop retreating
	Output core operation	1. choose to .take out the core 2. the outputting- core not to ending position or; Time has not finished 3. stop retreating

9. Setting Scope of Numeric Items

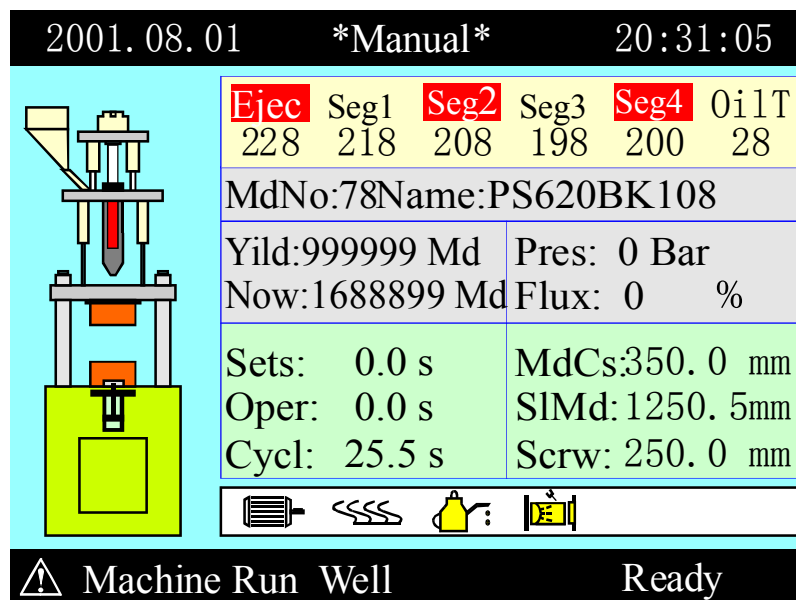
Number	Setting Items	Setting Scope	Unit
1	Establishing the pressure	Digital \leq 999.9	Second
2	Establish the speed	Digital \leq 140	Bar
3	Establish temperature	Digital \leq 99	%
4	The mould materials storing	Digital \leq 999Max700C for actual use Centigarade	°C
5	Establish jet out position	Digital \leq 999.9	mm
6	If the establishing value beyond thescope of the above,	Digital \leq 999.9	mm
7	Storage of mold data	Digital \leq 5999.9	mm
8	Book the output	Digital \leq 80	Number
9	Establish Lock mould position	Digital \leq 999999	PC


In case of the set values exceed the above-mentioned scopes, the system will not accept the numbers set and keep the original set values. For the habit of data input, the data input of this system is display from right to left.

Chapter three: parameter / function enactment explaining.





1.the machine-start main page of ordinary machine,

urn on the power ,turn round red urgent switch , computer operate light RUN light on ,you can see the following pictures on the screen, the control system has already worked normally at this moment, you can begin to operate the machine . The ready machine runs normally.



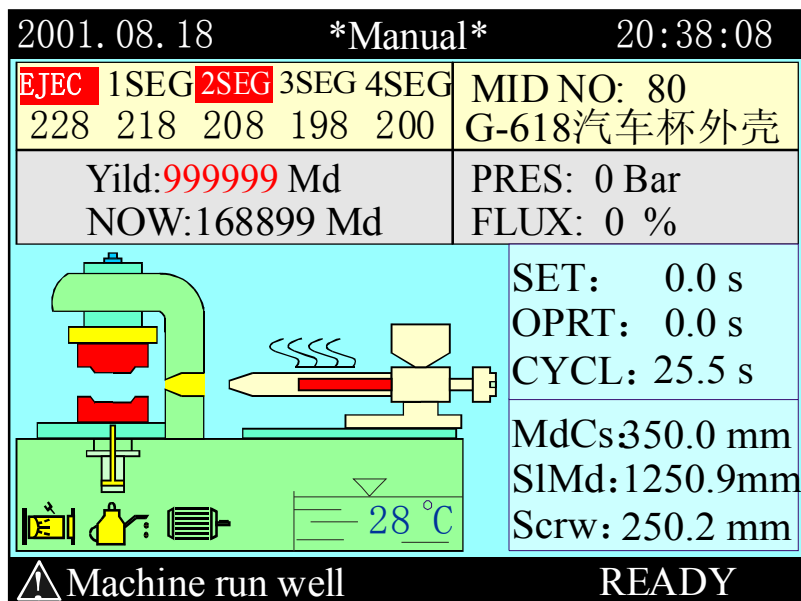
You can enter the picture of the machine  when push any time after starting the machine again. This page offer temperature monitor and machine movement monitor. Mould name and mould number is establishing by the materials picture of the mould. Temperature arranges and present oil temperature shows actual value of every sections. You can't alter the materials. Every function of the picture stated as follows:


The descriptions on mode:

Mode	Meanings
	Show the motor has already operated;
	Show the electric heat has already been opened;
	Show lubricate-pump that is pump oil;
	Show the electric eye is imported normally;





2.C Type machine machine-start main page

Turn on the power, turn round red urgent switch, computer operate light RUN light on, you can see the following pictures on the screen, the control system has already worked normally at this moment, you can begin to operate the machine. The ready machine runs normally.



You can enter the picture of the machine  page when push any time after starting the machine again. This page offer temperature monitor and machine movement monitor. Mould name and mould number is establishing by the materials picture of the mould. Temperature arranges and present oil temperature shows actual value of every sections. You can't alter the materials. Every function of the picture stated as follows:

The descriptions on mode:

Mode	Meanings
	Show the motor has already operated;
	Show the electric heat has already been opened;
	Show lubricate-pump that is pump oil;
	Show the electric eye is imported normally;

The descriptions on display:

Display	Meanings and descriptions
Manual	The running mode of the machine;
Second	sections it express this section is being heated;
Mould	number it express the using-model Serial number at present;
Produce	in advance; it expresses setting value of the times mould-opening at present
At present	Remember g the mould-making times of the mould at present in the course of operating automatically;
Whole	process the system operates cycle-time actually;
Operation	when carrying have established time value, data will increase to it, then carry on next movement, if number established is times number. Shows will go on until reaching value of times number.
Settlement	the time value or counter value of operating:
Pressure	pressure-established evalue of operating
Flo the flow-	established value of operating
Lock mould	show locking mould position at present, the unit is mm. ;
Slippery mould	shows slippery model's position at present, the unit is mm. ;
Spiral shell's pole	shows the present spiral shell's pole position, the unit is mm. ;
The machine runs normally	Show the warning content now
Ready	Show the movements of the machine operates now

Re-press



key to show the following menus

2003.01.06 【Alarm note】 10:07:12			
Date	Happen	Alarm content	Unchain
01日	10:03	Abnormal sensors	10:03
01日	12:08	Clamping mould not completed on time	12:08
01日	15:16	Plastic melting not completed on time	15:16
01日	15:17	Failure of mould releasing	15:17
01日	15:18	Mould opening not fixed on time	15:18
01日	15:19	Mould opening not fixed	15:19
01日	15:20	Failure of manipulator	15:20
01日	15:21	Failure of motor	15:21
01日	15:22	End of the cysle time	15:22
01日	15:23	Scheduled moukd opening	15:23

Descriptions on alarm mode

Alarm	Source	Solution
The electric eye is unusual	ThisX04 terms message show When electric eye Input have no signal; But the alarm is being only made only when shutting the mould .	Check whether the electricity is correct and electric eye is hidden or lost efficiency long.
Shut the mould has not finished regularly	Fail to finish shutting mould movements in 掙 hut the mould to prescribe a time limit " .	check whether unusual in shutting mould course, if normal you should transfer longer the" shut mould prescribes a time limit " .
Protect-mould time in low-voltage arrive,	If low-voltage time arrives, warning not transferred high-voltage yet.	Check whether mould have incidental, you can transfer longer 掙ow-voltage time "if possible.
the safely Input trouble	Warning when X00 has no signal input in the course of shutting the mould:	Please check whether the safety lock is put through normally and input end X00.is correct connection.
The button trouble of Shutting mould (one pair of slippery moulds have not this warning)	As only one X10 and X11 warning	Please check whether left and right shutting mould button connect correctly to the input end and press normally side to side.
Storing the material has not finished regularly	At storing material, in “store material prescribe a time limit in time ”. Fail to finish storing material movements:	Check Whether process is unusual and the material in the storage bucket has been used up , if usual, you can proper to transfer longer " store material prescribe a time limit " .
Open mould has not finished regularly	Fail to open mould to put in place in “open the mould to prescribe a time limit " .	Check mould-open , if no unusual, you can proper to transfer longer "
Trouble of the motor	Warning when the motor-protect point has signals input	Check whether oil pressure motor causes the hot relay to produce movements of protecting because the overload work..
Cycle has already ended	Automatic production cycle goes beyond setting for [cycle] .	Check automatic process, if have no unusual, can proper to transfer [cycle time] established longer
The output has already got schedule	Launch output park and modulus-opening time has reach output value established in advance, the machine stops turning round.	Solution: If make machine run continually after got output, you can put the {Shut down after warning} in management page {No}: Or make the total amount of present no number mould-opening as zero.
Opening mould has not got to reservation position	When manual tip our , opening mould have not got to the stopping position	Operate lock movements of the mould again, or check whether the stopping X12 of opening mould put through.

Operation/clewing state explaining

Alarm	Source
The First sections temperature is high	The machine material actual temperature tube is higher than the establishing value of upper limit .
The Second sections temperature is high	
The Third sections temperature is high	
The first section temperature is low	The machine material actual temperature tube is lower than the establishing value of upper limit .
The Second sections temperature is low	
The Third sections temperature is low	
The first section breaks	Machine material tube corresponding temperature sensing line break or temperature sensing line have trouble.
The Second section breaks	
The Third section breaks	
Retreating not reach the position	when operating the slippery-mould or shutting-mould , Retreating not reach the position.
The slippery mould has not got to the reservation.	When operating the thimble or shutting-mould, the slippery-mould has not got to the reservation .
The automatic clear material is finished	when using the automatic clear material , according to the number of times.established movements.
The function has not been selected	When press a certain function key , but this function has not been for use .
Please turn on motor,	if choose to use motor ,registering motor is not start when press half / full-automatic key
Withdraw from and press-showing state first	When choose the pressure adjustment, operation is not increase , reduce buttons .
Enters pressing showing-the state firstly	No pressure adjustment choose, whenpress the key of operation increasing or reducing

4.glue-jetting / pressure-keeping enacement




If press **INJECTION** key , you will enter the page of glue-jetting / pressure-keeping enacement , the picture

shows as follows at this moment:

2003. 01. 06
【 Inje/KeePres 】
10:07:12

	Pres (bar)	Flux (%)	Plac (mm)
Inj1	55	75	120. 0
Inj2	22	20	70. 0
Inj3	60	59	5. 0
KpPr	18	19	



ScrwPlac
350. 9 mm

KpPrTime
2. 0

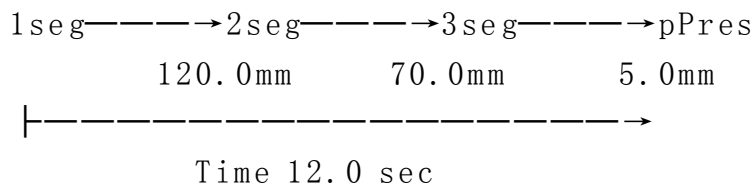
InjTTime 12.0 (s)

PmtError ± 3. 5 (mm)

InjCheck Nuse

InjCKpts 5. 1 (mm)

The parameter established / movement procedure / the function way explaining



- (1) the first section jetting reach to 120. 0mm ,then switch to seconf section . walk to 70 0mm more switch to the third sections, movement procedure: Walk to 5 0mm more . switch to pressure-keeping.
- (2) Supervise the normal jetting journey .begin to time promptly while enteringthe jetting , wait for time end , : Whether the distance arrives switch to pressure pretection promptly, so the time of jetting should be greater than real time.
- (3) jetting measure : Can choose [use]and [no use], when choosing to use under half / full-automatic mode, The computer fetches shooting the average number value of terminal point of 20 the first moulds as jetting our check-point automatically, users can establish the allowing error number value range . If after the 21st mould , find that shoots not reaching this check point or exceeding this check point , then warning [jetting fail], management regard this mould as the bad product in output at the same time .

5.Storing material / releasing glue materials establishing

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If press FEEDING key once , you will enter establish pages of storing material / releasing the glue ,

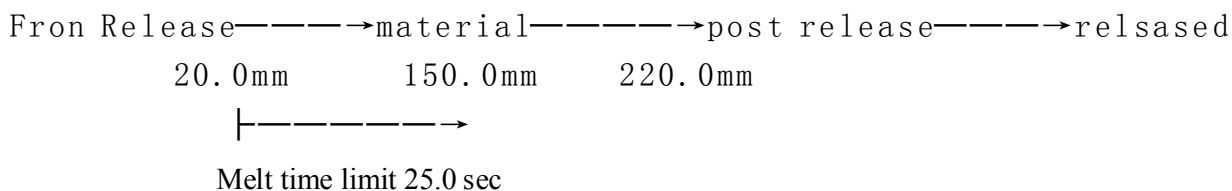
the picture shows as follows at this moment:

	Pres (bar)	Flux (%)	Place (mm)
BDcp	30	15	220.0
SMat	75	55	150.0
Fdcp	20	25	20.0

ScrwPlac	250.0 mm
Acoltime	0.5


CoolTime	8.5 (s)	SMatLtm	180.0(s)
SMatBPre	15(bar)		

The parameter established / movement procedure / the function way explaining



- (1) Movement procedure: after finished pressure-Protection , walking to 20.0 mm switch to store material , then to 150.0mm. switch to back releasing . to 220.0mm.more . Store material releasing glue finished
- (2) Storing material delay time: delay time in order to storing material, changing over to storing the material through delayed after pressure protection.
- (3) Cooling time: While operating automatically , after finishing jetting glue and pressure protection , cooling time begin to time . the running time of protecting storing the material , pump also is a part of cool time at this moment , if movement time exceed cool time , cool time over , store material , after finishing releasing glue may turn on mould, on the contrary , it is over to cool time , open the mould at once.
- (4) limiting time of Store material: For lack material warning time ,when reach to time ,if store material is immature .then regard as lack the material, so the time of the limit time is established longer than to store material time actually, otherwise warning .
- (5) Storing material press: adjust the Pressure of spiral shell's pole drawing back while storing the material .
- (6) Cooling way: Can choose jetting-finished or storing material over, choose jetting-finished , begin to start time the cooling time after jetting-finished, choose storing material over, start time cooling time when storing material is over.

6、 The automatic clear material establishing

When press  key two times , you will enter automatic clear material establishing pages,

the picture shows as follows at this moment:

2003. 01. 06 **Auto Clear Ma** 10:07:12

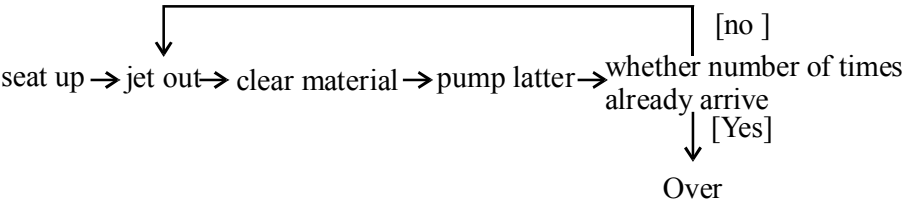
	Pres (bar)	Flux (%)	Time (s)
InjB	30	25	2.5
Purg	85	65	12.0
Inje	65	50	6.5

ScrwPlac
350.9 mm
PurgeTms
20

AutoPurg Nuse

The parameter established / movement procedure / the function way explaining

(1) Automatic clear material method:The automatic clear material function is had [uses] in the manual mode, press the automatic clear material key, the system begins to carry out automatic clearing material movements, the movement procedure is as follows:



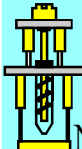

(2) The number of times of clear material : repeated to make clear material , the times of movements that jet movement.

7. The seat platform / the thimble materials setting

座臺/托模

If press NOZZ/EJE. key, you will enter a platform / the thimble and set pages, the picture

displays as follows at this moment:

2001. 08. 01		【NOZZ/EJEC SET】		20:31:05	
PRES FLUX TIME					
		(Bar)	(%)	(S)	
	NZUP	60	35	1.9	
	NDWN	20	15	1.5	
	KEEP	30	25	0.8	
	ETOP	70	25	2.5	
	EBTM	50	19	2.0	
		AUTO.EUP <input type="text" value="Nuse"/>			
		EJETMode <input type="text" value="CTms"/>			
		EJETMES <input type="text" value="0.2"/>			
E. ADVDLY		<input type="text" value="0.3"/>	(s)	E. RETDLY	<input type="text" value="0.2"/> (s)

The parameter established / movement procedure / the function way explaining

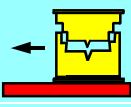
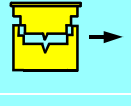
- (1) The seat rises automatically: Can choose [no use] or [finish storing] or [cooling over]; if choose [finish storing] after storing material, make rising movement when operating automatically; if choose [cooling over], after finishing, make a rising movement when operating automatically.
- (2) Thimble way: Can choose [order] or [stay]; if choose [stay], then on semi-automatic state, enter movement reach terminal then stop to carry, make and carry retreating until the next circulation before imprison mould.
- (3) The times of the thimble: Set the times of thimble movement
- (4) Enter delay: While operating automatically, delay time after finishing opening the mould and then carry enter.
- (5) return delay: While operating automatically, delay time after finishing carrying into enter and then carry and retreat again.
- (6) [The note]: while manually, it is not limited by the times (but can't be 0000).

8..slippery Mould /orienting material setting

座臺/托模

If press NOZZ/EJE. key tow times, you will enter the page of slippery mould / orienting setting, the picture

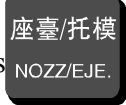
displays as follows at this moment:

2003.01.06		【 SdMd set 】		10:07:12	
SdMdPlac		Pres	Flux	Plac	
1250.9 mm		(bar)	(%)	(mm)	
	SdotFast	50	45	599.9	
	SdotSlow	25	25	1250.0	
	SdInFast	50	45	500.0	
	SdInSlow	20	25	0.0	
LockUp		140	99	1250.0	
LockDn		140	99	1250.0	
SdMdFund		Nuse	SdMdMode		SSII
LSldDely		0.3 (s)	RSldDely		0.3 (s)


The parameter established / movement procedure / the function way explaining

- (1) Slippery model function: Can press the input key to choose [Not Use] or [Use], when choose [Use] . the set way of slippery model is effectively.
- (2) Slippery model way: Can press the input key to choose [slip on the left], [Slip in right] or [Pair slips].
- (3) Choose slip on the left: Open mould ---Do left slippery movements ---- Slip on the left ----Thimble ----- Thimble finished ---- Wait ----- Press the left / right shut mould button -----Slip in right ----- finish Slipping in right -----Shut the mould ----- Begin the second circulation.
- (4) Choose slip in right : Open mould ---- Do slippery movements in right ---- Slip in right ----Thimble ---- Thimble finished--- Wait --- Press the left / right shut the mould button --- Slip on the left -----finish Slipping on the left ----Shut the mould ----- Begin the second circulation
- (5) Choose pair slip: Open mould ---Wait ---Press the left / right shut the mould button, if the model does slippery movements in right as above -----Then slippery movements on the left -----finish Slipping on the left -----Shut the mould -----Begin the second circulation.
- (6) Single slide machine : slip out if Slip on the left, slip into if slip in right.
- (7) The delay slipping on the left: the time from open the mould to the time of beginning slipping left.
- (8) The delay slipping on the right: the time from open the mould to the time of beginning slipping right

9、Release core materials setting

if press  key three times, you will enter the page of release core/ entangle tooth setting ,

the picture displays as follows at this moment:

2003. 01. 06		【 Tak Core 】		10:07:12	
Mold	Plac	Pres	Flux	Time	Plac
	250.9 mm	(bar)	(%)	Toth	(mm)
	CrIn	50	30	3.5	220.0
	CrOT	50	30	3.5	120.0
	ThIn	50	30	350	180.0
	Thot	50	30	350	80.0

CoreMode	Nuse	TothFunc	Muse
ThinDely	1.2 (s)	ThotDely	1.2 (s)

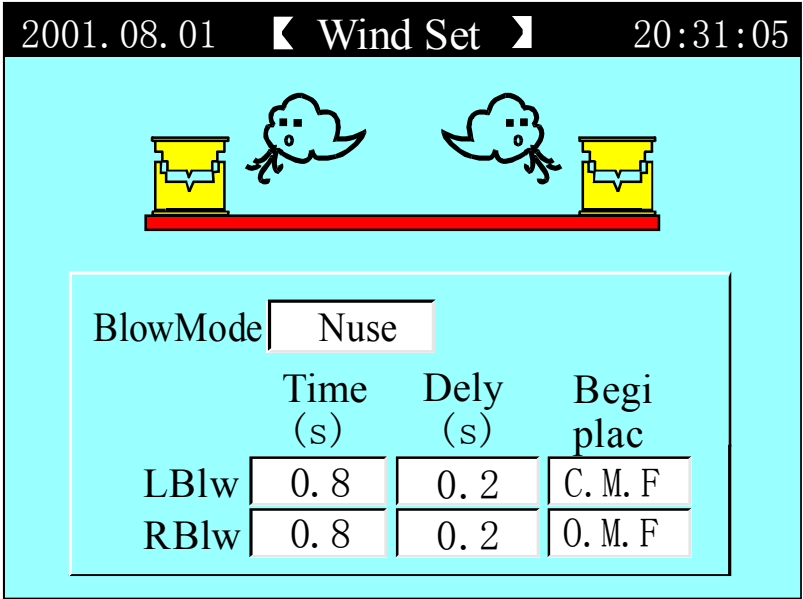
The parameter established / the function way explaining

- (1) pump core shape : You can choose [stop time], [stop journey], [entangle tooth count], [no use], choose [stop time], set time to stop pumping core movements; choose [stop journey], stop pumping core movements when inputting some breaks alarms [ON]; if choose [entangle tooth count] , you can control the entangle tooth , stopping determined by the pulse number of inputting entangle tooth.
- (2) Initial position: the begin position of Enter Core and Produce Core , namely where stop template , the settlement value that pumping core A , B.
- (3) The delay of entering the core : delay first after run automatically enter the core B initial position , when delay-time end, then make procedure movements of entering core B.
- (4) The delay of output Core B: delay first after run automatically enter the core B initial position ,. When delay-time end , then make procedure movements of output core B.

10、Blow gas materials setting




If press NOZZ/EJE. key four times, you will enter the page of blowing gas setting , the picture displays as follows at this moment:



The parameter established / the function way explaining

- (1) Blow gas shape : you can choose [no use], [blow left], [blow right], [blow left and right] .
This function can be used in the mould need blowing gas
- (2) Initial position: Can choose [before mould] ,[after mould] to make the settlement value
- (3) Delay time: delay first after run automatically the initial position of blowing, delay time end and then blow.

11、time / count setting

if press  key, you will enter time / count setting pages, the picture displays as follows

at this moment:

2001.08.01 【 Time / count setting】 20:31:05


Middle time	0.5	Act.Li.time	20.0
Cycle time	50.9	Fau .warn	10.5

Computer-start time	16989 H	59 M
Auto.On. time	6599 H	25 M
Motor. Run Time	8998 H	29 M

The parameter setting instruction

- (1) Lubricating time: Display that single running time of oil pump.
- (2) Lubricate modulus: calculate the times of opening mould .When the times reach the setting value, oil pump begin to work.
- (3) Middle time: In the full-automatic course, the time is from thimble work finished to the next circulation lock ,
- (4) Movements limited time: The permission longest time that movements are outputted
- (5) Cycle time: The limited time of operation cycle in the automatic course, if the time that circulation operates actually exceeds cycle, the system warn [cycle time is up].
- (6) Warning signal of the trouble: from trouble beginning to the stopping of warning avoid a long time warning.

12、The temperature setting

if press  key, you will enter temperature setting pages, the picture displays as follows at this moment:

2003. 1. 2 【Temprat Set】 15:32:15

	0	1	2	3	4	5
Ejec						
1Seg						
2Seg						
3Seg						
4Seg						
5Seg						
Meas	205	199	200	201	197	135
Set	210	205	200	200	198	150
Max	+10	+15	+15	+15	+15	+15
Min	-10	-15	-15	-15	-15	-15

Eje.Mode Open Screw.C.BT.T 10.0
Galv Close Tem. Warm Well


Parameter setting instruction

Temperature setting unit is 1℃ [degrees Centigrade], vertical machine material tube temperature is feedback to the ring control of control system by K , J Model electric thermocouple line.

System altogether offer five sections temperature controls and a sections of oil temperature measure.

Dozzle can choose [opening ring] /[closing ring] control. Except controlling temperature, the system also controls the temperature of every district, see whether it surmounted the upper and lower limit set, temperature lower than lower limit can not jet glue and melt glue which hinder cold spiral shell's pole start; temperature is higher than upper limit then warning .Each section temperature states display in the main picture .

13、Preheat materials setting

if press  key Two times, you will enter the preheat setting pages, the picture displays as follows at this moment:

2001. 08. 01 【 WarmUp set 】 20:31:05				
Func	Nuse	Doday: Sat		
Week	Set	Open-Tim	Set	Clos-Tim
Mon	ON	8:30	ON	16:40
Tue	ON	8:00	ON	17:00
Wed	ON	7:30	ON	17:30
Thu	ON	7:00	ON	18:00
Fri	ON	6:30	ON	18:30
Sat	ON	8:24	ON	19:00
Sun	ON	9:00	ON	19:30

parameter setting instruction

Preheating Function: make an appointment in seven days of one week. This system offers the function that whether some day use the heating in advance or not. You will not use preheat function by choosing [OFF]. If you chose [ON], the system will control the heating of the heating system, according to the setting value of turning on / off time in the day. The machine will heat the material tube to working temperature automatically before the operator works, reduce the time of waiting for .

*[The note]: The time inputting value adopts 24 hours.It is expressing 12:00 at night if input 00:00


14.The mould materials establishing

資料

DATUM

Press  key, will enter the mould materials establishing pages, the picture shows as follows






at this moment:

2001. 08. 01 **【 Mld Articles 】**  20:31:05

Mld.No.

Mld.Name

Mid View

NO	Mld Name	Save time	
01	ABS小 马车玩具	2003. 01. 01	    
02	ABS小 马车后轮	2003. 01. 01	
03	ABS小 马车前轮	2003. 01. 01	
04	ABS大 马车玩具	2003. 01. 01	
05	ABS大 马车后轮	2003. 01. 01	

The parameter establishing explaining

- (1) Mould serial number: This control system can store 80 groups of mould symbols , after altering the mould serial number, the system output the materials of symbol of the mould automatically.
- (2) The mould stores method : Cursor move to the mould serial number columne , import the numberl of the mould , and then move the cursor to the mould name column, after input the mould name, move cursor to store column.press the store key to store. this system offer inputting way in English and spelling.
- (3) The mould fetches method : in mould serial number fence , input mould number which will be read , move the cursor to ourput column and press the import key to read .this will change the number ar present and the whole page materials . For prevent from in half / full-automatic mode, page establish sudden change of parameter will cause harmful effects to product quality and cause contingency acciden , the mould fetches function is only limited to the manual mode.
- (4) Delete method : move the cursor to mould serial number fence , input mould number which will bedeleated , then import import key to delete in delete fence . the present mould can't be deleted.
- (5) the Method that refer the mould : move the cursor to the scanning fenceand utilize upper and lower key move the picture refer .

15、The production materials establishing

資料

DATUM

If press the buttons twice , you will enter production materials establishing pages, the picture shows as follows at this moment:

2001. 08. 01【 ProductManager 】 20:31:05

Set Mode	999999	Molds	Good	Bad
Mod1 Qua	20	900	1780	20
Warm Stop	Nuse	Zero		


Product record

Date	Mold	Tnun	Good	Bad
03. 01. 01	13	999999	999999	9999
03. 01. 02	03	999999	999999	9999
03. 01. 03	23	999999	999999	9999
03. 01. 04	05	999999	999999	9999
03. 01. 05	01	999999	999999	9999

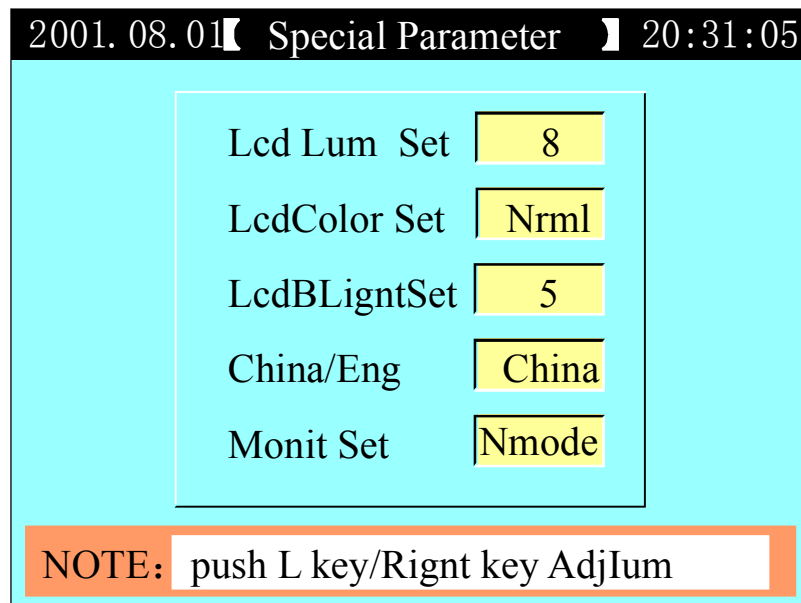
The parameter establishing explaining

- (1) The good product is equal to the modulus has already been made multiply by the quantity of a mould and deduct the bad . The bad product is controlled by the function of shotting and measure , when jetting measuring is in use, n the course , if excessive or insufficient state taking place , bad product increase one mould quantity value, and warning [measure to the bad product] .
- (2) Establishing modulus: establishing produce Modulus in advance, system automatic reach the frirst 5 moulds of already opening modulus established, the alarming until the modulus arrives.
- (3) Shut down warning : Can choose [use] , [not need] , after establishing modulus reaching if choosing no, machine continued producing, did not shut down until after the operator shuts down.
- (4) Method that the production record refer: move the cursor to production record fence and utilize upper and lower key to look out .





16、 The special parameter adjusting / establishing

If press  key, you will enter the special parameter adjusting / establishing pages,

the picture shows as follows at this moment:




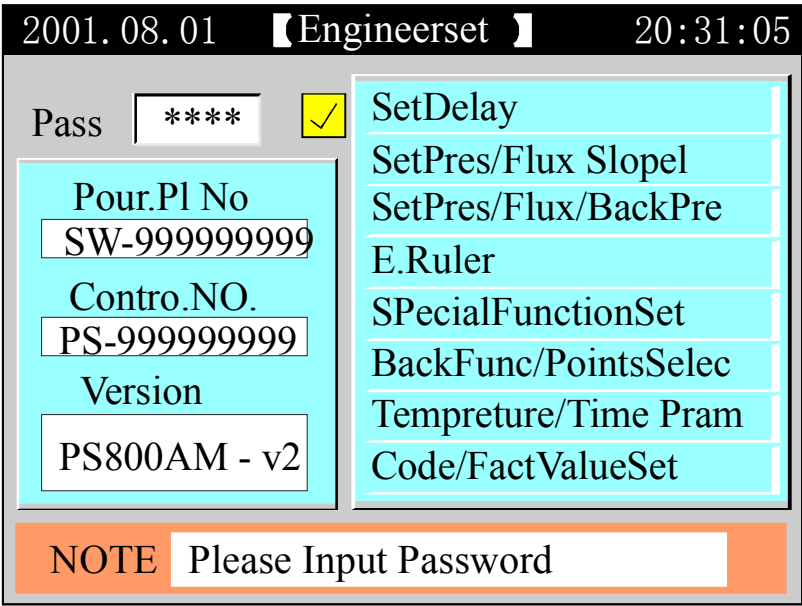
The parameter establishing explaining

- (1) LCD luminance is adjusted: Move the cursor to this place , press  the button, the screen will become dark gradually; The  screen character of the button will be increased bright gradually, the adjusting range is " 1-16 " grade.
- (2) LCD color establishing : It offer system [the normal, against color] two kind choice,have cursor moved to the place,press  button later, can change each other .
- (3) Time in a poor light of LCD: The system possesses the screen protection function, background light time can be established, establish the range for 1-5 minutes, if establishing has not operated the keybo ard in timing, then the background light automatic OFF.
- (4) Choose Monitor pages: The system offers [the C type machine , ordinary machine] two kinds of choices, this choice determines the main picture show of monitor- page
- (5) Chinese and English establishing : The system offers [the Chinese and English language] two kinds of choices, move the cursor to this place ,press  the button, can change each other.




Chapter four: System Debugs Instruction









1.Engineer setting page

Press  Key,button In the main picture, you will enter engineer's setting page, the picture displays as follows at this moment:



Input the password * * * * And then if the password is correct then your can enter ☒ ; if incorrect ☐ , you can enter until the correct password is entered. Then you can enter the systematic parameter setting pages after. If you are the end user of the machine, you need not to adjust the systematic parameter please contact supplier if there is doubt, otherwise the parameter is adjusted messily, may damage the performance of the lathe and cause unstable or unable to run.

After the password is input correctly, the cursor will jump to the first column on the right automatically , can choose every column content again with the   key ,press, the button to enter. Or press buttons the following and enter the corresponding page directly:  press. The button enters the page.

Key	Entering Page	Key	Entering Page
	<Delay Setting>		<Special Function Options>
	<Pressure/Flow Setting I> <Pressure/Flow Setting II>		<Standby Function Setting> <Programmable Standby Points>
	<Pressure Pre-Adjustment> <Flow Pre-Adjustment> <Back Pressure Adjustment>		<Temperature Parameter/ Time Setting>
	<Electronic Ruler Setting>		<Machine No./Ex-Factory Value Setting>

2. Delay Setting Page

After entering the correct password, press  Key to enter the Delay Setting Page. The following is displayed:

RET<<

【 Set Delay 】

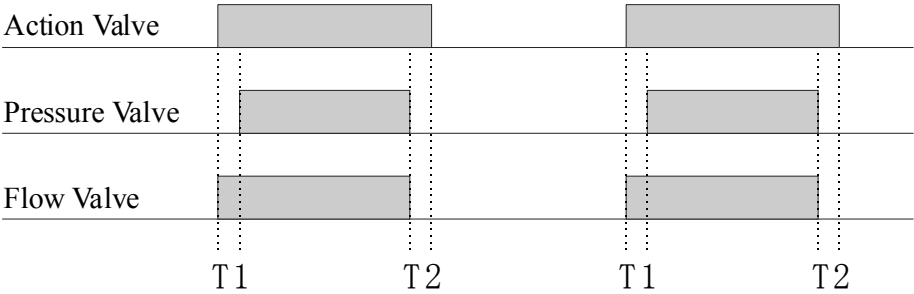
Begi	Act	End
0.0	M.CI	0.0
0.0	ADV	0.0
0.0	INJE	0.0
0.0	FEED	0.0
0.0	DECO	0.0
0.0	RET	0.0
0.0	OPEN	0.0
0.0	ADV	0.0

Begi	Act	End
0.0	RET	0.0
0.0	THIN	0.0
0.0	THIC	0.0
0.0	A_IN	0.0
0.0	AOUT	0.0
0.0	B_IN	0.0
0.0	BOUT	0.0
***	DIFF	0.0

NOTE

Set scope 0.0-0.5 second

Description on setting parameters



- (1) The meaning of Start Delay: the corresponding action valve ON →

delay time T1 → pressure output ON
flow output ON
- (2) The meaning of End Delay: the corresponding action valve →

pressure output OFF
flow output OFF

 → delay time T2 → action valve OFF
- (3) The setting ranges for the Start [T1] and the End [T2] are 0.0-0.5 seconds.

3. Pressure/Flow Slope Setting Page

After entering the correct password, press  Key once to enter Pressure/Flow Slope

Page I. The following is displayed:

Next>> **【 Set Pres/Flux Slope1 】**

Act	P	F	Act	P	F
SlowClos	16	16	SlowOpen	16	16
FastClos	16	16	FastOpen	16	16
MediClos	16	16	MediOpen	16	16
LowClos	16	16	LowOpen	16	16
HPreClos	16	16	CoreA In	16	16
ADV.Quic	16	16	CoreAout	16	16
ADV.Slow	16	16	CoreA In	16	16
Ejec RET	16	16	CoreAout	16	16

NOTE GotoPressFlusSet2

After entering the correct password, press  Key twice to enter Pressure/Flow Slope

Page II. The following is displayed:

RET<< **【 Set Pres/Flux Slope2 】**


ACT	P	F	ACT	P	F
1LevInjc	16	16	1LevFeed	16	16
2LevInjc	16	16	2LevFeed	16	16
3LevInjc	16	16	BackDeco	16	16
4LevInjc	16	16	NozzlADV	16	16
1LevPres	16	16	NozzlRET	16	16
2LevPres	16	16	MoldThin	16	16
3LevPres	16	16	MoldThick	16	16
FronDecp	16	16	Other	16	16

NOTE Return to Engineer Set

Description on setting parameters

The Pressure/Flow Slope refers to the steep degree of rise or fall when the pressure/flow changes from one value to the next value. “1” stands for the slowest change and “16” stands for the fastest change. The setting range is [1-16].

4. Pressure Pre-Adjustment Page

After entering the correct password, press  Key once to enter the Pressure Pre-Adjustment Page. The following is displayed:

Next>>		【 PressPreadj 】				
Coil RES.	Prea	Nuse	70	120	OFF	
20 Ω	1	10	OFF	80	160	OFF
CurrMax	10	20	OFF	90	180	OFF
10 mA	20	40	OFF	100	200	OFF
CurrMin	30	60	OFF	110	210	OFF
800 mA	40	80	OFF	120	220	OFF
PreAdjp	50	100	OFF	130	230	OFF
90 %	60	110	OFF	140	255	OFF
NOTE GotoFluxpreAdj						

Description on setting parameters

The pressure pre-adjustment is the linear adjustment of pressure output. In general, the standard pressure is 0-800mA and the standard output impedance is 10-20 Ω, unless the manufacturer has specific requirements since different manufactures' overall oil piping designs and the capabilities of the pressure proportional valve being used are different.

Pressure Adjustment Method:

The parameters on this page have been set before ex-factory. If the capability of the proportional valves being used by the user is different, and the normal proportion and linear proportion cannot be achieved, the parameters on this page can be adjusted. First set the pre-adjustment to be [Activated], and then set the pre-adjustment item to be [ON]. For example, for the 50 bar pressure position of Item 50, if the reading on the pressure meter is 45 bar, the parameter of this item should be increased until the pressuremeter reading reaches 50 bar. Make adjustments on all parameters which need adjusting and make the 0-140 bar pressures being set correspond to the pressures being shown on the oil pressure meter respectively. After the adjustments are completed, the computer executes automatically linear processing and takes the processing results as the subsequent normal D/A proportional output values.

5. Flow Pre-Adjustment Page



After entering the correct password, press **INJECTION** Key twice to enter the Flow Pre-Adjustment Page. The following is displayed:

Next>>		【 FluxPreadj 】		
Coil RES.	20 Ω	Prea	Nuse	50 160 OFF
CurrMax	10 mA	1 40 OFF		60 180 OFF
CurrMin	800 mA	10 60 OFF		70 200 OFF
PreAdj	90 bar	20 80 OFF		80 210 OFF
		30 110 OFF		90 230 OFF
		40 140 OFF		99 255 OFF
NOTE GotoBPressPreadj				

Description on setting parameters

The flow pre-adjustment is the linear adjustment of flow output. In general, the standard value is 0-800mA and the output impedance is 40 Ω , unless the manufacturer has specific requirements since different manufactures' overall oil piping designs and the capabilities of the pressure proportional valve being used are different.

Flow Adjustment Method:

The parameters on this page have been set before ex-factory. If the capability of the proportional valves being used by the user is different, and the normal proportion and linear proportion cannot be achieved, the parameters on this page can be adjusted. As for the speed adjustment, different manufacturers have different measuring methods. Some manufacturers use the melt tachometer to measure the rotation speed. First heat the barrel until the barrel temperature reaches normal melt temperature. Set the melt speed to be 1, 10, 20, 30, and more until 99 and check the actual values. Make adjustments on all parameters which need adjusting and make the 0-99% speeds being set correspond to the proportional coefficients being shown on the tachometer respectively. After the adjustments are completed, the computer executes automatically linear processing and takes the processing results as the subsequent normal D/A proportional output values.

6. Back Pressure Pre-Adjustment Page

After entering the correct password, press  Key three time to enter the Back Pressure

Pre-Adjustment Page. The following is displayed:

RET<<
【 BPPreadj 】

Coil RES. <div style="background-color: yellow; padding: 2px; display: inline-block;">20</div> Ω CurrMax <div style="background-color: yellow; padding: 2px; display: inline-block;">10</div> mA CurrMin <div style="background-color: yellow; padding: 2px; display: inline-block;">800</div> mA PreAdj <div style="background-color: yellow; padding: 2px; display: inline-block;">1</div> %	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Prea</th> <th>Nuse</th> <th></th> </tr> </thead> <tbody> <tr><td>1</td><td>10</td><td>OFF</td></tr> <tr><td>10</td><td>20</td><td>OFF</td></tr> <tr><td>20</td><td>40</td><td>OFF</td></tr> <tr><td>30</td><td>60</td><td>OFF</td></tr> <tr><td>40</td><td>80</td><td>OFF</td></tr> <tr><td>50</td><td>100</td><td>OFF</td></tr> <tr><td>60</td><td>110</td><td>OFF</td></tr> </tbody> </table>	Prea	Nuse		1	10	OFF	10	20	OFF	20	40	OFF	30	60	OFF	40	80	OFF	50	100	OFF	60	110	OFF	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>70</td><td>120</td><td>OFF</td></tr> <tr><td>80</td><td>160</td><td>OFF</td></tr> <tr><td>90</td><td>180</td><td>OFF</td></tr> <tr><td>100</td><td>200</td><td>OFF</td></tr> <tr><td>110</td><td>210</td><td>OFF</td></tr> <tr><td>120</td><td>220</td><td>OFF</td></tr> <tr><td>130</td><td>230</td><td>OFF</td></tr> <tr><td>140</td><td>255</td><td>OFF</td></tr> </tbody> </table>	70	120	OFF	80	160	OFF	90	180	OFF	100	200	OFF	110	210	OFF	120	220	OFF	130	230	OFF	140	255	OFF
Prea	Nuse																																																	
1	10	OFF																																																
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110	210	OFF																																																
120	220	OFF																																																
130	230	OFF																																																
140	255	OFF																																																

NOTE

Return to Engineer Set

Description on setting parameters

The back pressure pre-adjustment is the linear adjustment of back pressure output. In general, the standard pressure is 0-800mA and the standard output impedance is 10-20 Ω , unless the manufacturer has specific requirements since different manufactures' overall oil piping designs and the capabilities of the pressure proportional valve being used are different.

Back Pressure Adjustment Method:

The parameters on this page have been set before ex-factory. If the capability of the proportional valves being used by the user is different, and the normal proportion and linear proportion cannot be achieved, the parameters on this page can be adjusted. First heat the barrel until the barrel temperature reaches normal melt temperature. Set the melt back pressure to be 1, 10, 20, 30, and more until 140 and check the actual values. Make adjustments on all parameters which need adjusting and make the 0-140 bar back pressures being set correspond to the back pressures being shown on the back pressure meter respectively. After the adjustments are completed, the computer executes automatically linear processing and takes the processing results as the subsequent normal D/A proportional output values.

7. Electronic Ruler Setting Page



After entering the correct password, press Key _ three times to enter the Electronic Ruler Setting Page. The following is displayed:

Ret<< **【 E.Ruler Set 】**

E.Rule		Mete.V	Leng	Limi	G.Orig
LMldRu	Rset	250. 0	400. 0	375. 0	Conf
InjeRU	Rset	68. 8	150. 0	235. 0	Conf
ThimRU	Use	188. 8	250. 0	125. 0	Conf

NOTE Scope:0.0---999.9

Description on setting parameters

- (1) Electronic Ruler Function: If the equipment needs to use the electronic ruler, choose [Activated]. If the equipment adopts stroke switch control, choose [Deactivated].
- (2) Measurement Values: indicating the actual dynamic positions of the electronic rulers for the clamping unit, the injection unit and the ejector.
- (3) Total Length: referring to the actual lengths of the electronic rulers for the clamping unit, the injection unit and the ejector.
- (4) Limit Position: It refers to the maximum value set for the position. This parameter is subject to the maximum position setting. For example, if the parameter set is bigger than the limit position value, the system will not accept the parameter set and will retain the original setting.
- (5) Zeroing: When the equipment choose [Activated] for the Electronic Ruler Function and uses the electronic ruler, it may appear that the mechanic movement stroke is in place and yet the actual positions of the electronic rulers for the clamping unit, the injection unit and the ejector do not indicate “0” . In such case, the corresponding ruler should be zeroed. Move the cursor to the zeroing button

for [clamping unit ruler], [injection unit ruler] and [ejector ruler], and then press



Key to make zero clearing for the corresponding electronic ruler.

8.Choosing special function page

After password input correctly, press  the button, you will enter and delay setting pages, display as follows:


Ret<< 【 ChosesSpecFunc 】	
EjecEndMode	Path
EjecBeginAt	SliEnd
FeedMldOpen	Use
FeedKeyLock	Use
MotorStpSelf	Use
MotorLTimeFr	50
MotoY-Δ	Use
Y- ΔTime	3.0
MdClsprt	Fspd
MdClsEnd	Way
MldClsFs	Diff
Eeyesign	On
StDnspUs	Time
FeedRot	Nuse
Sdmdfunc	DSid
Auto	Use

Note: return engineer-setting pages

The parameter setting instruction

- (1) Choose the journey and the set will be stop by journey. Choose time and the set will be stopped by time .The ways of thimble stop:
- (2) You can the end mode of melt glue and the slippery-mode. Only pair slippery moulds function [meit end] [mold end]thimble originates: Work while choosing.
- (3) Melt the glue and open the mould at the same time: When it use cool time which arrive, opening mould needn't wait the finishing of melt and release glue.
- (4) Manual press the melt glue key melt glue in succession until melt glue position or time button reach self-lock . And then stop melting glue movements, or press once again melt-glue key to stop melting glue movements promptly.
- (5) The motor dallies and stops by oneself: the limited time set ed is effectively that the motor dally while using.
- (6) The motor racing limit time: Set range is 2-999 min, when starting, system measure is in this time, the machine closes the motor automatically when not doing any operation, in order to protect the life-span of motor and save the electric rate.
- (7) Shut mould self-insurance: [quick][low pres]Can choose fast[quick] , low-voltage , begin self-insurance while choosing fast; Begin self-insurance while choosing [low-voltage] low-voltage .
- (8) Shut mould stopping : [While choosing time to the high pressure of shutting mould, high-pressure time begins to time, time to shutting the mould to stop promptly; Choose journey and end point of shutting mould is on ,then shutting mould promptly stop
- (9) Shut mould fast: Y51 chooses guide valve to export all the time while opening themould; Choose differential Y51 and not export while opening the mould.
- (10)The slippery mould is used: Can choose pairs of slippery mould , single slippery mould , no need, this fence function choose will decided is by display of page and using choose of slippery mould function
- (11) dazzle locking: A section of way functions of the page are chosen to be locked while choosing to use [temperature set ed].
- (12) Full-automatic: While choosing to use, the machine can run full-automatically.

9. Standby Function Setting Page

After entering the correct password, press  Key to enter the Standby Function Setting

Page. The following is displayed:

Next >>
【ChoseBakFunc】

OutPoint Func NUSE

Y	46	→	Y	66	off
Y	62	→	Y	62	off

Inpoint Func NUSE


X	00	→	X	25	off
X	22	→	X	22	off

NOTE
Set Scope:40---73

Descriptions on setting parameters function mode

- (1) Output Point Transfer Function: This function can be activated or deactivated. If activated, the output point executes immediately transfer operation. In case that mal-function or damage occurs to a certain point, the control can be transferred to another point by activating this function. For example, in case that failure occurs to the mould opening output point and the knockout core function is deactivated, the Y46 mould opening point can be transferred to Y66 and then the output wires should be exchanged. The system is equipped with the function of simultaneously transferring two output points. Once this function is activated, the system makes judgment on the two selected items. If the item is [ON], the transfer of the pre-set conditions of the item will be executed.
- (2) Input Point Transfer Function: This function can be activated or deactivated. If activated, the input point executes immediately transfer operation. In case that mal-function or damage occurs to a certain point, the control can be transferred to another point by activating this function. For example, in case that failure occurs to the front safety door input point and the knockout core function is deactivated, the X00 front safety door input point can be transferred to X25 and then the input wires should be exchanged. The system is equipped with the function of simultaneously transferring two input points. Once this function is activated, the system makes judgment on the two selected items. If the item is [ON], the transfer of the pre-set conditions of the item will be executed.

10. Programmable Standby Function Page

After entering the correct password, press  Key twice to enter the Programmable Page.

The following is displayed:

Ret<<		【 PragBckPoint 】	
NUSE	Y 73	AT	ACFL SegOut
NUSE	Y 72	AT	ABCDEFGHJKLMNOP SegOut
NUSE	Y 71	AT	FL SegOut
NUSE	Y 70	AT	C SegOut
NUSE	Y 67	AT	CD SegOut
NOTE Set Scope:40---73			

Descriptions on setting parameters function mode

In order to meet diversified application needs and provide an innovative product, we take the initiative to offer the programmable standby function page so that the users can define and revise by themselves the functions and the action sequence.

Example 1: For a certain mould injection machine, due to the different design of the oil piping, it is required that a point is output while clamping at high pressure and the power will not be interrupted until the melt finishes taking out. To achieve such a special function, choose an item and have it activated, and then specify an output point (i.e. this function is output through Y xx), and then set the action sequence [CD].

Notes: Regarding the output scope of Sequence D Clamping Stop, in automatic mode, the clamping switch is contacted during the process of mould close at high pressure, and this sequence output starts until the melting finishes; in manual mode, the clamping switch is contacted during the process of mould close at high pressure, and this sequence output starts until the mould opening key or the reset key is pressed.

Example 2: For a certain mould injection machine, due to the different design of the oil piping, it is required that a point is output while injecting and melting. To achieve such a special function, choose an item and have it activated, and then specify an output point (i.e. this function is output through Y xx), and then set the action sequence [FH].

11. Temperature Parameter/Time Setting Page

After entering the correct password, press



Key to enter the Temperature Parameter/Time

Setting Page. The following is displayed:

Ret<<		【 Set temp./Time Prams 】					
		P	D		P	D	
Ejec	Use	50	50	3Seg	Use	50	50
1Seg	Use	50	50	4Seg	Use	50	50
2Seg	Use	50	50	5Seg	Use	50	50
OilTAlrm		Use		Max		80	
03	Y	01	M	01	D	18	H
				08	M	58	S
		Wed.					
NOTE Returnr to Engineer Set							

Descriptions on setting parameters function mode

- (1) Nozzle Function: [Activated] or [Deactivated] can be chosen. If deactivated, the system will not execute inspection and control on this sequence.
- (2) Sequence I Function: [Activated] or [Deactivated] can be chosen. If deactivated, the system will not execute inspection and control on this sequence.
- (3) Sequence II Function: [Activated] or [Deactivated] can be chosen. If deactivated, the system will not execute inspection and control on this sequence.
- (4) Sequence III Function: [Activated] or [Deactivated] can be chosen. If deactivated, the system will not execute inspection and control on this sequence.
- (5) Sequence IV Function: [Activated] or [Deactivated] can be chosen. If deactivated, the system will not execute inspection and control on this sequence.
- (6) Sequence V Function: [Activated] or [Deactivated] can be chosen. If deactivated, the system will not execute inspection and control on this sequence.
- (7) Oil Temperature Selected: [Activated] or [Deactivated] can be chosen. If deactivated, once it is detected that the oil temperature is equal to or over the set upper limit, the alarm will be neglected. If activated, the alarm will be output, and the system will turn to manual mode and the motor will be turned off when the alarm cycle ends.
- (8) Pd Setting: Pd has been set before ex-factory. It is recommended that the user should not revise this parameter under normal circumstance.

12. Machine No./Ex-Factory Value Setting Page

After entering the correct password, press



Key to enter the Machine No./Ex-Factory

Value Setting Page. The following is displayed:

Descriptions on setting parameters function mode

- (1) Mould Injection Machine No.: The system is equipped with the function of setting NO. for the mould injection machine so that the manufacturer can set the No. for easy sales management and after-sales service record.
- (2) Ex-Factory Value Restoration: During the modifying process of password pages, if normal operation cannot be achieved due to too much deviations of the modified parameters, press Key Enter and choose Confirm, and then all the contents and all the parameters will be restored to the standards values set before ex-factory.

Chapter 5 Input/Output Mode Inspection


1. Input Inspection Page

- (1) Press **2_{VWX}** Key on the Main Page to enter Input Inspection Page I and the following will be displayed:


2003. 1. 2 【Input Check1】 15:32:15	
<input checked="" type="checkbox"/> X00 Bsafedoor	<input checked="" type="checkbox"/> X10 QuicOMld
<input type="checkbox"/> X01 LPreLmld	<input type="checkbox"/> X11 OMld2Slw
<input checked="" type="checkbox"/> X02 Hprelmld	<input type="checkbox"/> X12 OmldStop
<input type="checkbox"/> X03 LMldStop	<input type="checkbox"/> X13 ThimFStp
<input checked="" type="checkbox"/> X04 ShotDiaFS	<input checked="" type="checkbox"/> X14 ThimBStp
<input type="checkbox"/> X05 Rote1	<input type="checkbox"/> X15 Rote2
<input type="checkbox"/> X06 RoteSp1	<input type="checkbox"/> X16 RoteSp2
<input checked="" type="checkbox"/> X07 ShotDiaBS	<input type="checkbox"/> X17 2LevShot
NOTE: < <input type="checkbox"/> --Ninput/ <input checked="" type="checkbox"/> --Input >	

- (2) Press **3_{YZ}** Key on the Main Page to enter Input Inspection Page II and the following will be displayed:

2003. 1. 2 【Input Check2】 15:32:15	
<input checked="" type="checkbox"/> X20 3LevInje	<input checked="" type="checkbox"/> X30 In.C B S
<input type="checkbox"/> X21 Mi.M F.S	<input type="checkbox"/> X31 Ou.C B S
<input type="checkbox"/> X22 Mi.M b.S	<input type="checkbox"/> X32 Litteroil
<input type="checkbox"/> X23 Mani C.M	<input type="checkbox"/> X33 +10VG
<input type="checkbox"/> X24 Mani Thi	<input type="checkbox"/> X34 MldclsRu
<input type="checkbox"/> X25 In.C A S	<input type="checkbox"/> X35 Injectru
<input type="checkbox"/> X26 Ou.C A S	<input type="checkbox"/> X36 Ejectru
<input type="checkbox"/> X27 MotorOvld	<input type="checkbox"/> X37 10VG
NOTE: < <input type="checkbox"/> --Ninput/ <input checked="" type="checkbox"/> --Input >	

- (3) Press  Key on the Main Page to enter Key Inspection Page I and the following will be displayed:


2003. 1. 2 【 Key Inspection 1】 15:32:15	
<input checked="" type="checkbox"/> ManuMoldOpen	<input checked="" type="checkbox"/> SLOWSpeed
<input type="checkbox"/> ManuMoldClose	<input type="checkbox"/> Auto Mold ADJ.
<input type="checkbox"/> ManuInjection	<input type="checkbox"/> Manu Decomp
<input type="checkbox"/> ManuFeeding	<input type="checkbox"/> ManuPurge
<input type="checkbox"/> AnuEjectRet	<input type="checkbox"/> ManuEjector
<input type="checkbox"/> ManuEjectAdv	<input type="checkbox"/> ManuLlow
<input type="checkbox"/> ManuNozzleAdv	<input type="checkbox"/> ManulubrIct
<input type="checkbox"/> ManuNozzleRet	<input type="checkbox"/> ManuBlwFmale
NOTE < <input type="checkbox"/> --Ninput/ <input checked="" type="checkbox"/> --Input >	

- (4) Press  Key on the Main Page to enter Key Inspection Page II and the following will be displayed:


2003. 1. 2 【 Key Inspection】 15:32:15	
<input checked="" type="checkbox"/> MidAdjSelect	<input checked="" type="checkbox"/> MANUAL
<input type="checkbox"/> ManuMidAdjRet	<input type="checkbox"/> SEMI.AUTO
<input type="checkbox"/> Manumidadjadv	<input type="checkbox"/> Auto
<input type="checkbox"/> CORE A IN	<input type="checkbox"/> UrgeReset
<input type="checkbox"/> CORE A OUT	<input type="checkbox"/> HEATER ON/OFF
<input type="checkbox"/> CORE B IN	<input type="checkbox"/> MOTOR ON/OFF
<input type="checkbox"/> CORE B OUT	<input type="checkbox"/> Data lock
<input type="checkbox"/>	<input type="checkbox"/> UrgeStpOn/Off
NOTE < <input type="checkbox"/> --Ninput/ <input checked="" type="checkbox"/> --Input >	

The above input inspection pages are used for signal inspection and cannot accept information modified. The solid box on the display indicates that the signals are being input.


2. Output Inspection Page

- (1) Press  Key on the Main Page to enter Output Inspection Page I and the following will be displayed:

2003. 1. 2 【Output chec1】 15:32:15	
<input type="checkbox"/> Y40Moldclose	<input type="checkbox"/> Y50 Djectret
<input type="checkbox"/> Y41NozzleAdv	<input type="checkbox"/> Y51 MoldThin
<input checked="" type="checkbox"/> Y42Injection	<input type="checkbox"/> Y52 Diff L.M
<input type="checkbox"/> Y43Feeding	<input type="checkbox"/> Y53 Rote
<input type="checkbox"/> Y44Decomp	<input checked="" type="checkbox"/> Y54 Rote Slw
<input type="checkbox"/> Y45Nozzleret	<input checked="" type="checkbox"/> Y55 Reserve
<input type="checkbox"/> Y46MoldOpen	<input type="checkbox"/> Y56 LPMldCls
<input type="checkbox"/> Y47EjectAdv	<input type="checkbox"/> Y57 HPmldCls
NOTE: < <input type="checkbox"/> --NotOut/ <input checked="" type="checkbox"/> --OutPut>	

- (2) Press  Key on the Main Page to enter Output Inspection Page II and the following will be displayed:

2003. 1. 2 【Output chec2】 15:32:15	
<input type="checkbox"/> Y60FaultAlarm	<input type="checkbox"/> Y70Back
<input type="checkbox"/> Y61BPump	<input type="checkbox"/> Y71back
<input type="checkbox"/> Y62MPump	<input checked="" type="checkbox"/> Y72BlowMale
<input type="checkbox"/> Y63MldOpnBuff	<input type="checkbox"/> Y73BlowFmale
<input type="checkbox"/> Y64CoreBin	<input type="checkbox"/> PressIndi
<input type="checkbox"/> Y65CoreBout	<input type="checkbox"/> FluxIndi
<input type="checkbox"/> Y66CoreAin	<input type="checkbox"/> MoldAdj
<input type="checkbox"/> Y67CoreAout	<input type="checkbox"/> AutoPurgelIndj
NOTE:< <input type="checkbox"/> --NotOut/ <input checked="" type="checkbox"/> --OutPut>	

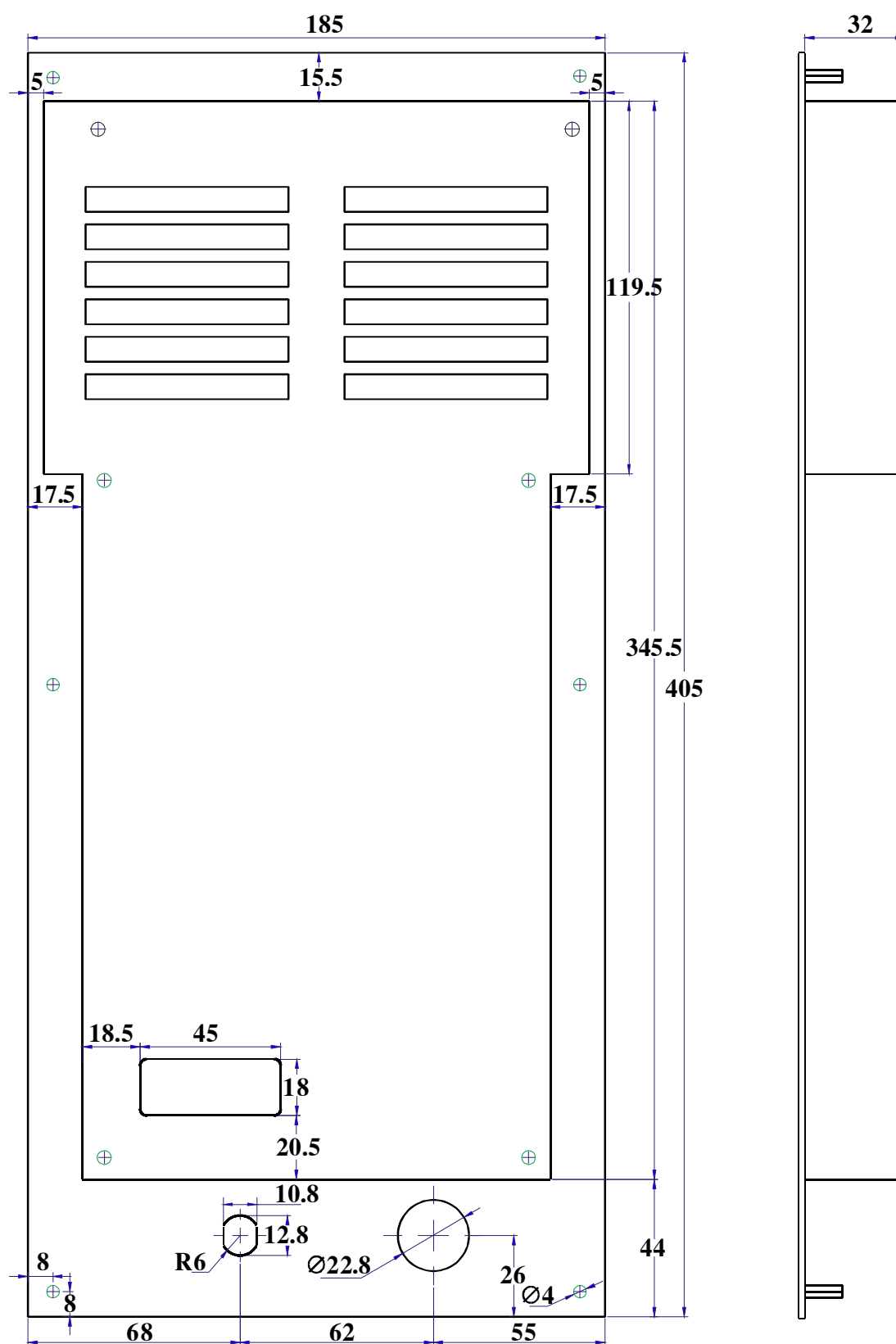
- (3) Press  Key on the Main Page to enter Output Inspection Page III and the following will be displayed:

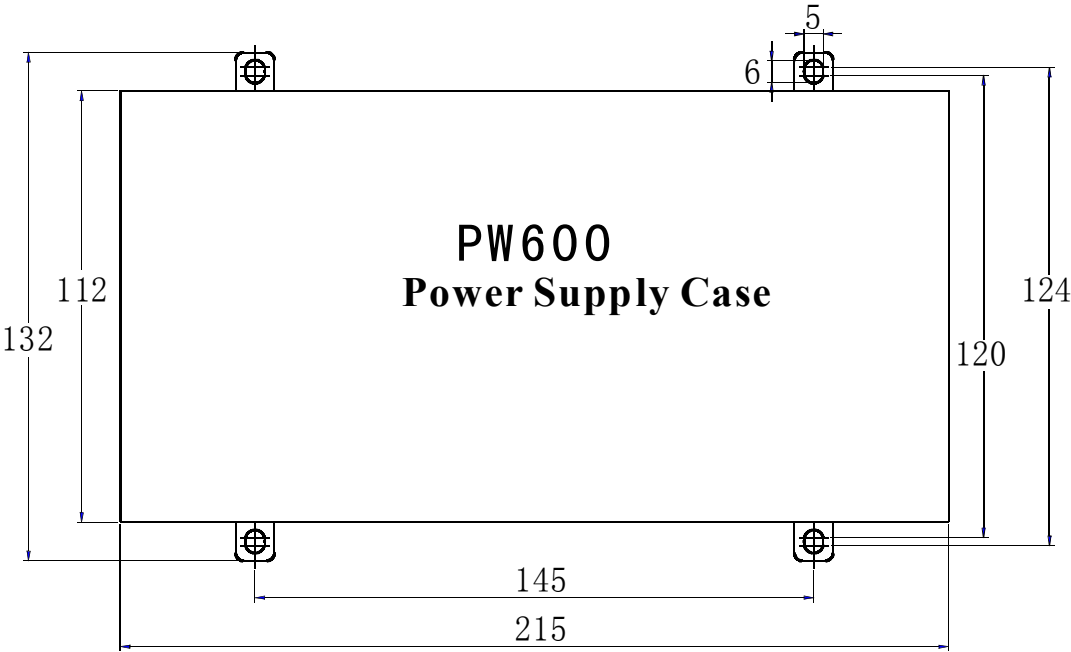
2003. 1. 2		【 Output chec3 】	15:32:15
<input type="checkbox"/> T0T0Eject	<input type="checkbox"/> ManuIndi		
<input type="checkbox"/> T1Seg1	<input type="checkbox"/> SemiAutoIndj		
<input checked="" type="checkbox"/> T2Seg2	<input checked="" type="checkbox"/> AutoIndj		
<input type="checkbox"/> T3Seg3	<input type="checkbox"/> UrgeResrt		
<input type="checkbox"/> T4Seg4	<input type="checkbox"/> HeaterIndj		
<input type="checkbox"/> T5Seg5	<input type="checkbox"/> Motor Indj		
<input type="checkbox"/> ΔMotor	<input type="checkbox"/> MoldADjIndi		
<input type="checkbox"/> Ymotor	<input type="checkbox"/> MAutoMIdAdini		
NOTE: < <input type="checkbox"/> -NotOut/ <input checked="" type="checkbox"/> --OutPut >			

- (4) The above output inspection pages are used for signal inspection and cannot accept information modification. The solid box on the display indicates that the signals are being output.

★ Notes:

All the input and output point pages in this instruction manual are subject to changes without notice. The inspection pages displayed on the computer should be correct and final.

**BK208S Keyboard Installation Size Diagram**



**Figure of Dimensions & Installation Hole Positions
for Power Supply Case**

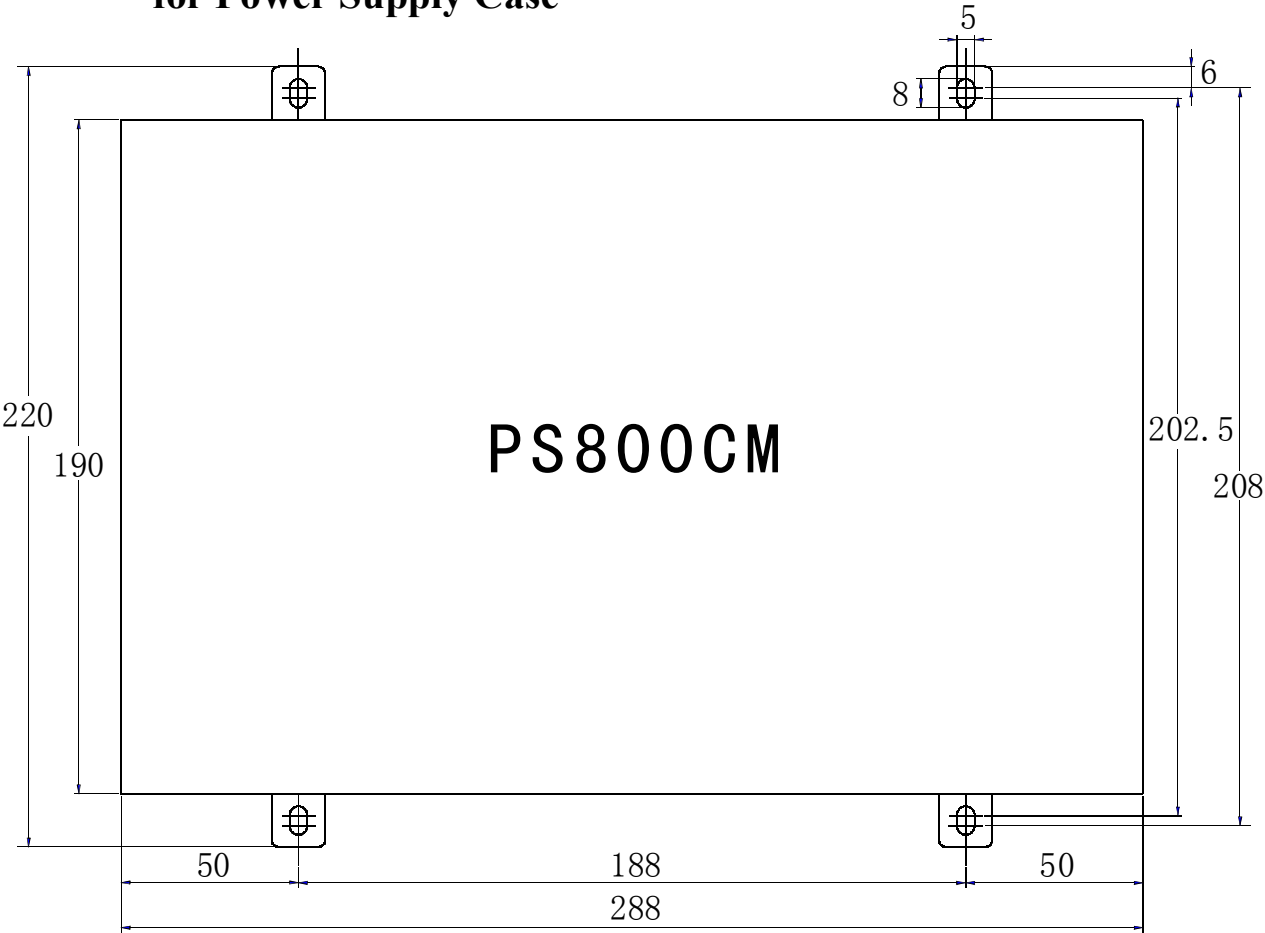
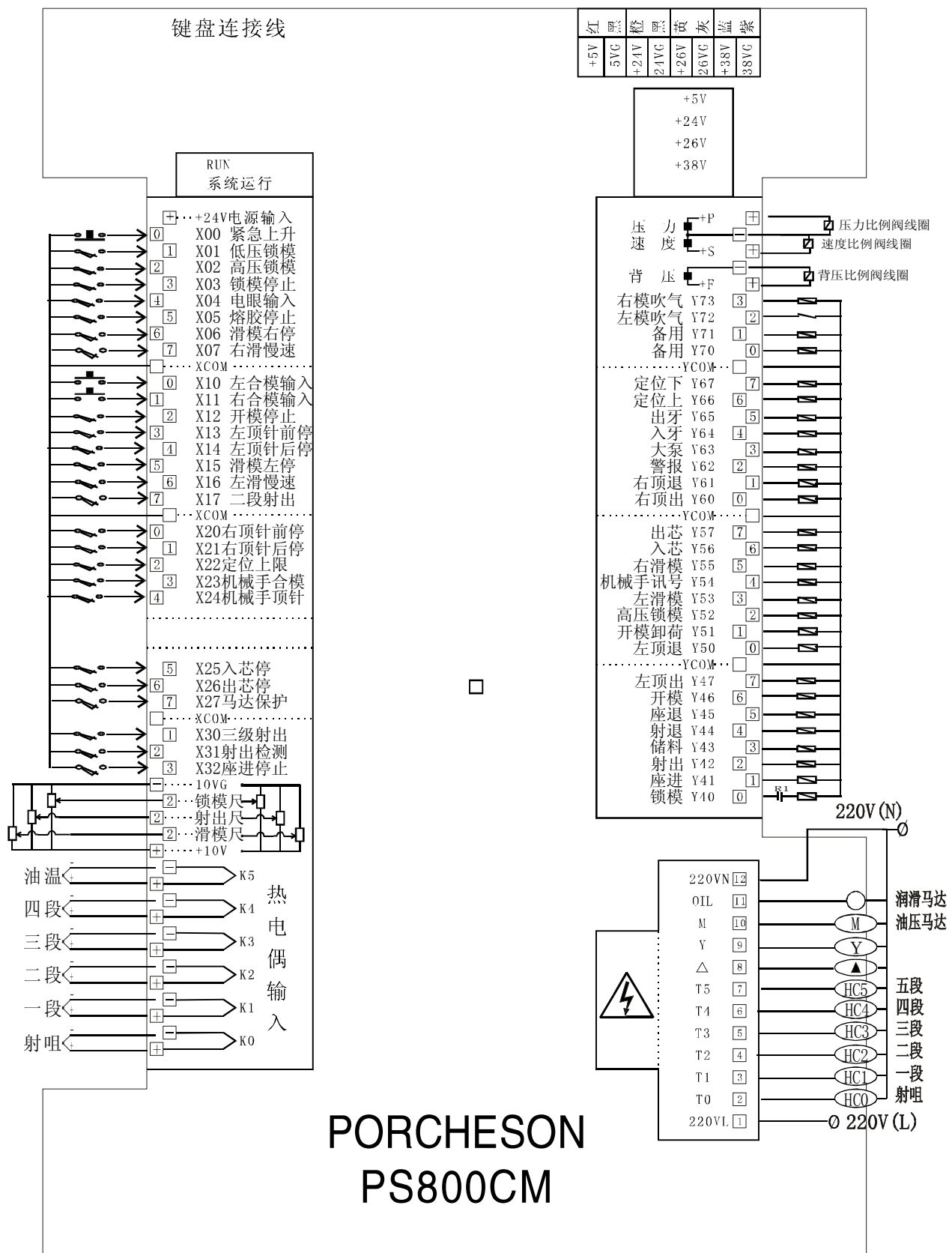
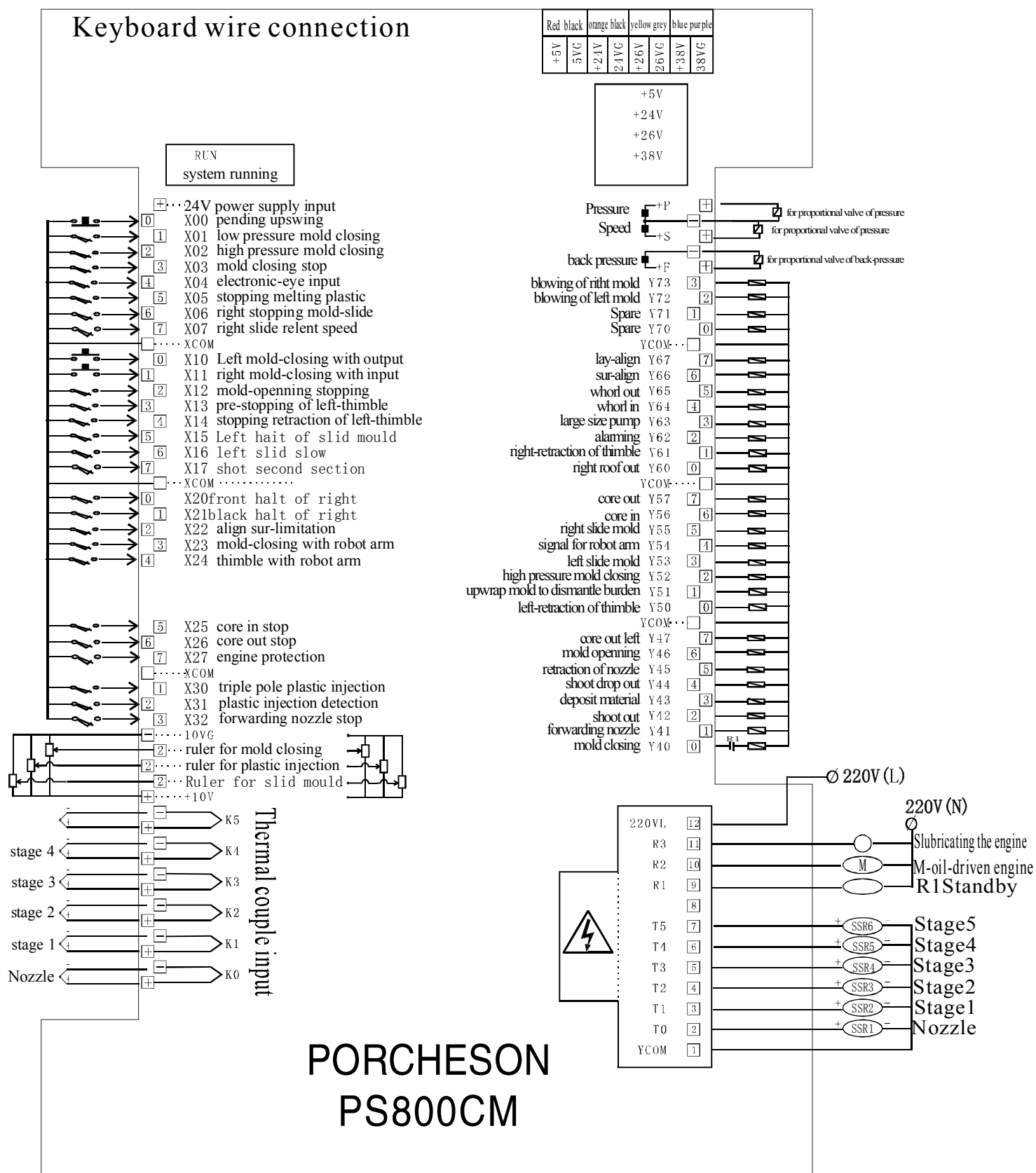


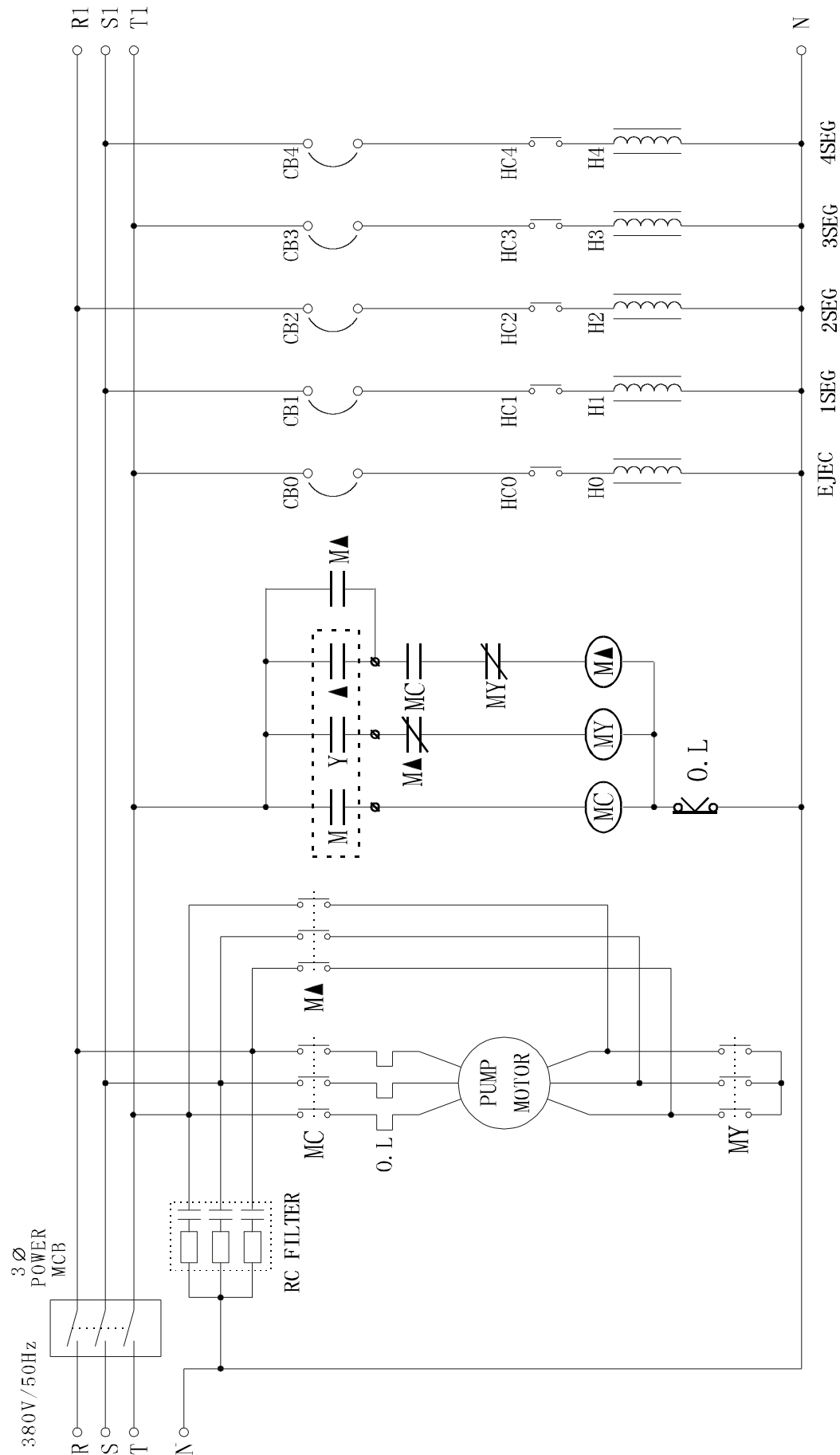
Figure of Dimensions & Installation Hole Positions for Master Machine

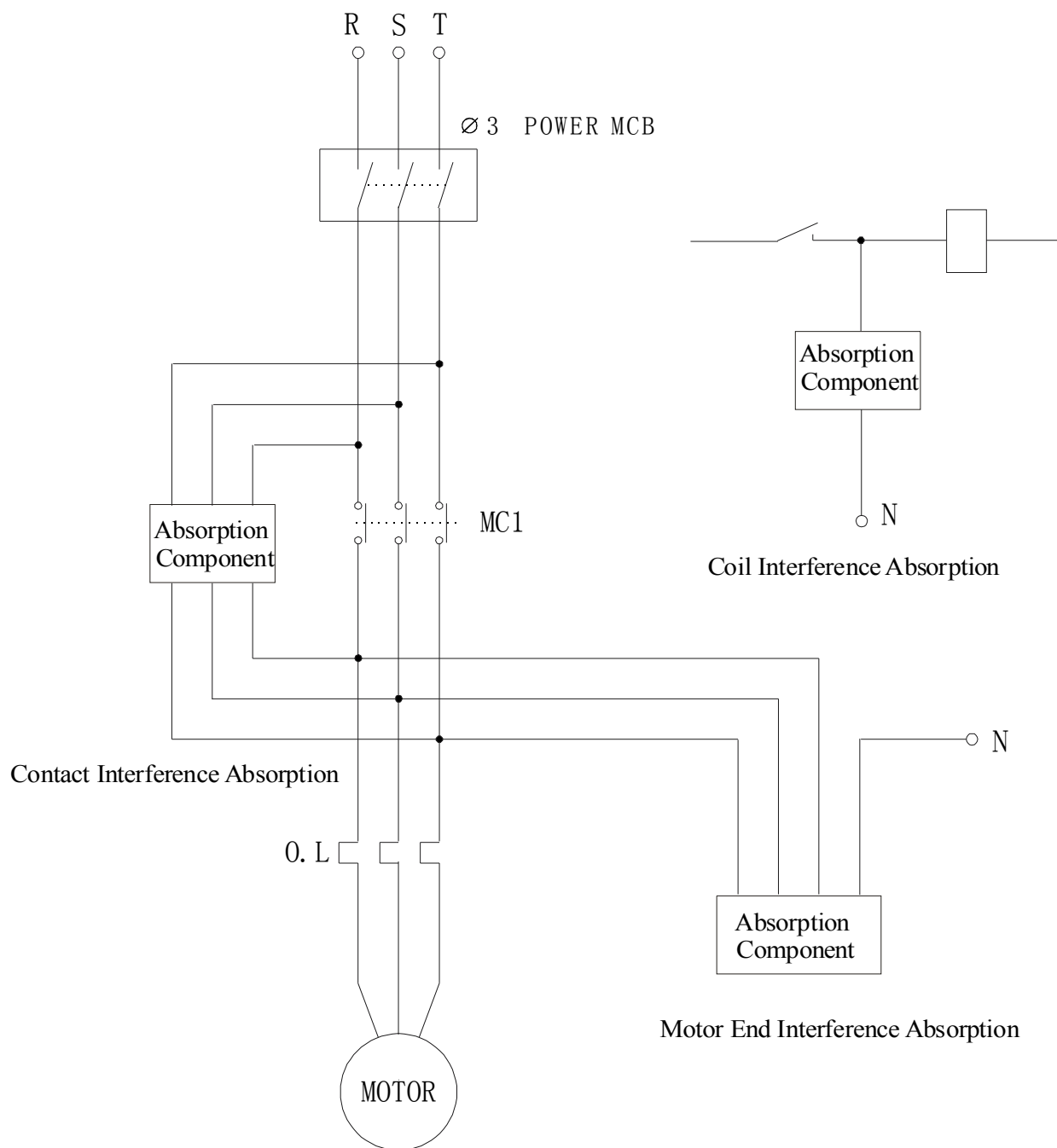






PS800CM Input & Output Wiring Diagram

**Motor Electric-Heating Wiring Diagram (for reference only)**



Common Interference Suppression Method (for reference only)